#### March 2010

Remember to share your copy of HF Happenings with your radio amateur friends and club members - even those you do not like.

## Delayed QSL Card

Mike, G4KFK, has just received a QSL card for a contact he had over 25 years ago. Is this a record? The RTTY contact with SM3ELN took place on 14 March 1985 on the 14 MHz band.

Mike recalls his memories of that time, "I was running a BBC Micro with G3WHO software which I'd transferred to sideways EPROM (who remembers those...?) with a homebrew terminal unit to G3LIV's design.

The beauty of the sideways EPROM was that you could invoke software directly from the operating system with (in this case) \*RTTY (CR) which loaded instantly without waiting for the 5-1/4" floppy to spin up. The radio was a Yaesu FT-757GX, and I have no idea what kind of antenna I was using in March 1985, other than it was probably a wire of some kind.

My interest in RTTY was sparked by near-neighbour Mike, G3JKN, who had the de-rigueur setup of that era, a Creed 7B with an ST5 terminal unit. There's no way I could have lifted a Creed into my shack, which was in the loft of my parents' house in Denham, so I had to do RTTY with one of those new-fangled computers.

The QSL can be seen at <a href="http://www.q4kfk.co.uk/SM2ELN.jpg">http://www.q4kfk.co.uk/SM2ELN.jpg</a>

Can anyone beat 25 years?

## FCC - No spread spectrum on HF

The FCC has responded to a request for clarification on the use of the ROS data mode and US Radio Amateurs have raised questions about the use of  $\hbox{\it CHIP64}$ 

In response to a request for clarification on the use of ROS, the FCC has reiterated that Spread Spectrum emission types are only authorized on the 222 - 225 MHz and higher frequency amateur bands.

They also said, "The licensee of the station transmitting the emission is responsible for determining that the operation of the station complies with the rules. This would include determining the type of emission the station is transmitting and that the frequencies being used are authorized for that type of emission."

CHIP64 is a mode that US Radio Amateurs have used successfully on HF for several years. It is a Direct Sequence Spread Spectrum (DSSS) mode and would appear to fall in the same category as ROS.

Read the FCC response on ROS on the Digital Radio Yahoo Group at http://groups.yahoo.com/group/digitalradio/message/34812
The CHIP64 Digital Mode - Direct Sequence Spread Spectrum (DSSS) http://www.arrl.org/FandES/field/regulations/techchar/Chip64.pdf
ARRL Virginia Section National Traffic System uses CHIP64 on 80 m http://aresracesofva.org/index.php?option=com\_content& view=article&id=88&Itemid=95

Digital Radio Yahoo Group

http://groups.yahoo.com/group/digitalradio/

South African Radio League 1925 - 2010 Suid-Afrikaanse Radioliga Member Society of the International Amateur Radio Union Region 1 HF Happenings via Yahoo Groups <u>HF\_Happenings-subscribe@yahoogroups.com</u>



## ROS interfering with international beacon network

A new amateur radio digital mode is causing havoc to reception of the NCDXF international beacon chain on 14,100 MHz.

The culprit is ROS - a new spreadspectrum, multi-tone mode that is already being considered as illegal in the US where spread spectrum cannot be used below 222 MHz according to FCC rules.

The ROS frequencies have been declared as 14,098 MHz and 14,1011 MHz, but Steve Nichols, secretary of the RSGB's Propagation Studies Committee, says that ROS has been heard wiping out weak beacon signals on 14,100 MHz.

"This is a real shame," Steve said. "The international beacon chain is a very important tool for understanding HF propagation. Many people around the world use it and a lot of effort has gone into automated monitoring using programs such as FAROS. The weaker beacons are being wiped out by 59 signals at times. I would urge the originators of ROS to think again about their choice of frequency - or at least ensure that users are not interfering with 14,100 MHz."

## 20m ROS frequencies are moved

José Alberto Nieto Ros, the originator of the new amateur radio data mode ROS, has agreed to move the suggested 20m frequencies for ROS to 14,0972 MHz and 14,102 MHz.

This takes them further away from the 14,100 MHz international beacon chain frequency as the originals had been 14,098 MHz and 14,1011 MHz.

"This is good news," said Steve Nichols, secretary of the RSGB's Propagation Studies Committee. "I am grateful to José for acting so

"It is important that we keep 14,100 MHz clear as

the beacon network (the only 20 on m) used worldwide.

Some reports of interference by ROS may have actually been Olivia, which sounds very similar. And today we have heard packet signals on 14,100 MHz too. It looks like we still need to educate some data users about keeping away from the beacon frequency," he said.

You can find out more about ROS at http://rosmodem.wordpress.com and more about the International Beacon Project at http://www.ncdxf.org/beacons.html

## March 2010

ZS10 WCS operated by the Sandton and West Rand ARCs

1 Closing date SARL Field Day logs

5 CANSA Shavathon; closing date Tinus Lange awards

6 - 7 ARRL DX SSB Contest 7 SARL Hamnet 40 Metre Contest

8 International Women's Day

11 World Kidney Day

13 PIC Course, NARC; RSGB

Commonwealth contest

14 RSGB Commonwealth contest; Argus Cycle Race

17 St Patrick's Day

19 SARL VHF/UHF Digital Contest

20 Autumn Equinox; SARL VHF/UHF Digital and Ana-

logue Contests 21 Human Right's Day; Na-

mibian Independence Day; SARL VHF/UHF Digital and

Analogue Contests

22 Public Holiday [RSA &

Namibia]; World Water Day; closing date Hamnet logs

23 World Meteorological Day

26 Schools Close 27 - 28 CQ WW WPX SSB

28 Palm Sunday

30 Pesach (Passover)

31 SARL Club Championship digital



# Page 3

#### DXCC News

The following operations are approved for DXCC credit:

3V35 - Tunisia, 2009 operation D2CQ - Angola, current operation [Thanks Tjerk, Z56P]

## Win a Microchip PICDEM Touch Sense 1 Development Board and Diagnostic Tool in the 2010 Construction Competition

The South African Amateur Radio Development Trust is inviting entries in the 2010 construction competition, which this year is a competition with a difference. We are looking for an innovative approach to a construction project that has application in Amateur Radio but based on microchip technology.

The overall winner will be awarded a PICDEMT Touch Sense 1 Development Board and Diagnostic Tool and a PICkit 2 Kit from Microchip as well as an ARRL handbook.

The competition is run in three stages. Stage one is a paper design stage in which the participant in the competition must develop a project of his or her choice using a microchip and submit a short write up of the project including a circuit diagram and description of operation. The closing date for stage one is 31 March 2010.

Three entries, which in the opinion of the judges are the most original coupled with their usefulness in Amateur Radio, will receive R500 to build a proto-type for entry in the second stage of the competition.

The second stage entry must be a complete, suitably packaged and operating unit. All the necessary paperwork as well as an article with circuit and illustrations for publication in Radio ZS must accompany the entry. The closing date for stage 2 is 7 May 2010.

Full details and the stage 1 entry form can be found on www.amateurradio.org.za [SARL News 28 February]

## Learn To Program a Pic Micro-Controller in Four Hours

Staying with PIC Micro-controllers, the SARL PIC course has been fully revised and updated and will be presented in Gauteng, Port Elizabeth, Durban and Cape Town. The revised course is great for newcomers to micro-controller programming and also an ideal refresher course for those who are already constructing with PICs.

The course fee includes tuition, required software on a CD, a demonstration board with a PIC, A programmer to download your programs to the PIC and two project boards, which can be selected when booking for the course. A USB programmer is available to course participant at a small additional charge.

The first course will be held at the NARC on 13 March 2010. Bookings are now open. Only a maximum of 20 persons can be accommodated on each course so do not delay. Get full details and a booking form on www.sarl.org.za, click on RTA and follow the links. [SARL News 28 February]

#### ARRL DX Phone Contest

With the 2010 ARRL International DX CW Contest now history, the first weekend in March brings the next round of competition: the 2010 ARRL International DX Phone Contest. Like its CW predecessor, this event focuses on DX stations working all US states and Canadian provinces, while US and Canadian amateurs try to work as many DX countries as possible over the 48-hour contest period.



Read more at http://www.arrl.org/news/stories/2010/02/24/11356/?nc=1.

### Super Check Partial Databases on 03 March 10

A new release of the Super Check Partial database files is now available at http://www.supercheckpartial.com. Calls in the MASTER.DTA file -  $43\,014$  and calls in the MASTERTTY.DTA file -  $9\,606$ .

April 10

You can expect the next release in early May. If you would like to contribute your logs, please send me the same Cabrillo format log that you submitted to the contest sponsor. It does not have to be a big log either - every log helps. If you have already sent me your logs, there is no reason to send them again. Simply add your log as an attachment to an email and send to logs@supercheckpartial.com. More info on SCP at http://www.supercheckpartial.com

#### DX from Africa

Madagascar, 5R - AF-057. Michele, IK5ZUI, will be active as 5R8UI from Nosy Be Island (WLOTA LH-3042), Madagascar, starting early March 2010 and he will stay there probably for one year. QSL via home call.

Rodriguez Island, 3B9 - AF-017. John, G3LZQ, will be active from Cotton Bay, Rodriguez Island between 3 March and 2 April as 3B9WR, including an entry in the RSGB Commonwealth Contest (13 - 14 March). Activity will be on 160 - 10 metres, with a focus on the low bands. John plans to be on the air daily during his sunrise and sunsets, 01:45 UTC and 13:45 UTC, and occasionally during his daytime.. QSL via home call, direct or Bureau. [BERU contest news]

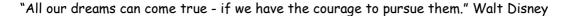
The Gambia, C5. Look for Niels, OZ8KR, to be active holiday style from Bakuto, The Gambia, as C56KR from 5 - 24 March. He will be active 80 - 10 m SSB with 100 W, into wire antennas  $- 2 \times 36$  m - 12 m high - close to the Atlantic. QSL via home call, direct (QRZ.com).

Canary Islands, EA8 - AF-004. Andrew, G7COD, will be operational from Playa Del Cura on the island of Gran Canaria (DIE 5-005, ESA GC, WLOTA LH-0969) using the call EA8/G7COD from the 20 - 28 March 2010. He will be active on 20 - 10 metres, including the WARC bands, using SSB and CW. He will be operational every day from approximately 13:00 to 14:00 UTC, 18:00 to 20:00 UTC and 23:00 to 23:30 UTC. Spot frequencies to be used are: SSB - 14,177, 18,133, 21,253, 24,953 and 28,500 MHz (+/- 10 KHz); CW - 14,003, 18,073, 21,003 and 24,893 and 28,003 MHz (+/-).

For comprehensive details of QSL information, propagation forecast etc., please check his website at www.8q7ak.freewebspace.com/

Morocco, CN. Look for Hartwig, DL7BC, to be active as CN2BC from Morocco (Zone 33) during the CQ WW WPX SSB Contest (27 - 28 March) as a Single-Op, All-Band, Low-Power entry. QSL via his home call, direct or bureau and visit his web page at www.gslnet.de/dl7bc/

Madeira, CT3. Helmut, DJ6QT, will be active with a new prefix during the CQ WW WPX SSB Contest (27 - 28 March) from Santana, Ilha da Madeira (IOTA AF-014, DIP MA-001, WLOTA LH-0053). He will participate as a Single-Op entry using the call sign CQ3L (previously CR3L). QSL via DJ6QT, direct or by the Bureau. Logs will be uploaded to LoTW.







Mozambique, C9. David, GI4FUM, EI4DJ, 3DAODJ, says, "I am planning to run a DXpedition to the Maputo area of Mozambique for JOTA 2010 and CQ WW SSB in October 2010. I have previously operated as 3DAOSS from Hawane in Swaziland for JOTA 2008.

Details of the DX peditions to Southern Africa can be found on the CQ DX African Safari web site at http://www.3da0ss.net/

## Special Event Stations

Council of Europe. The Council of Europe Radio Amateur Club will be active 12 - 14 March 2010 with the call TP60CE using SSB, CW, RTTY, PSK and Satellite to commemorate the  $60^{th}$  Anniversary of the Convention of Human Rights. QSL via F5LGF. Web www.ewwa.free.fr/

United Kingdom. In recognition of the historic events that took place in 1935 and 1940, which played a significant part in Britains war effort, Bawdsey Manor, Suffolk, England (IOTA EU-005, WLOTA LH-1840, WW Loc. JO01QX), will be activated on three separate occasions during 2010.

During its time as a radar research centre and as an operational station for Chain Home radar, it was known by the acronym BRS - Bawdsey Research Station. Special event call signs with BRS as the suffix have been applied for to recognise this. Over the weekend of 26 to 28 February they will be on the air on HF, 6 m and VHF, operating CW, SSB and possibly some digital modes too. The call sign requested is GB75BRS, since this operation will commemorate the 75<sup>th</sup> anniversary of the Daventry Experiment, which resulted in radar development in the UK being based first at Orfordness, then at Bawdsey.

Later in the year, they will operate on two weekends to commemorate the  $70^{th}$  anniversary of the start and end of the Battle of Britain in 1940. The call sign GB70BRS has been requested. These weekends will be 5 - 6 June and 18 - 19 September.

Operating bands and modes will be as for the February event. A special QSL card will be issued to those making contact with either of the stations, and a parchment certificate will be available on request to stations who make contact with both call signs - information about the stations, operation and QSL arrangements can be found on their web site at www.bawdseyresearchstation.org.uk/

Bulgaria. To commemorate the 132<sup>nd</sup> anniversary of the liberation of Bulgaria from the Ottoman yoke by Russia, the Balkan Contest Club, LZ1KZA, will operate with special event call sign LZ132GO from 1 - 31 March 2010. QSL via LZ1ZF. LZ132GO counts for 10 points towards the "St. Teodosii Tyrnovski" award - www.balkanclub.org/awards.htm

Lithuania. Celebrating the 20th anniversary of the Act of the Re-Establishment of the State of Lithuania on 11 March 1990, eleven LY20 and LY11 stations will be active during March and April. LY11BY and LY20NX will be active until 31 March, while the others, LY11A, LY11GV, LY11MM, LY11QT, LY20AM, LY20INDP, LY20J, LY20PSK and LY20W, will be active until 29 April. QSL via the operator's instructions. Please contact Rolandas Mikalauskas, LY4Q, at diplomai@lrmd.lt, for information on the relevant award, issued by the Lithuanian Amateur Radio Society www.lrmd.lt.

Austria, OE10. The Amateur Radio Section of the ORF (Austrian Broadcasting Corporation) and the Documentary Archives Radio Communications/QSL Collection will operate, for only 72 hours, a special event station with the call sign OE10M during the weekend of 23 - 25 April (00:00 - 24:00 UTC). OE10M is an official "International Marconi Day" station. Contacts made on Satur-



day 24 April, are valid for the IMD Award. QSL via OE QSL Bureau or direct to OE1WHC. Cards without SAE and (new!) IRC or USDs to cover postage will be processed via Bureau. To see the QSL, go to <a href="http://www.gsl.at/down/oe10m.jpg">http://www.gsl.at/down/oe10m.jpg</a>

International Marconi Day. The 23<sup>rd</sup> International Marconi Day will take place on 24 April. Although not a contest, awards can be obtained and full details can be found at www.gb4imd.org.uk. For a station to be counted towards an award by applicants, that station must be registered by contacting the webmaster by e-mail at webmaster@gb4imd.org.uk prior to the event with full details of the station.

In order to qualify as an Award Station, operations should take place from a site that either used Marconi equipment prior to his death in 1937 or from which Marconi carried out experiments during the same period.

#### VK7 award

The Tassie Devil Award is available for any amateur who meet the following requirements: HF in Australia - 50 Contacts, in Oceania and Antarctica - 30 Contacts, in North America and Asia - 20 Contacts, Europe and South America - 10 Contacts and Africa - 7 Contacts.

On VHF/UHF, you need 20 VK7 stations with at least one contact made in each of the Southern, Northern and North Western regions. Repeaters may be utilised. On IRLP - contact with 30 VK7 stations. Visit http://reast.asn.au/awards.php#devil for more information.

## ZS6PTA Mega Flea market on 27 March 2010

The next ZS6PTA Pretoria Amateur Radio Club Flea market will be held on Saturday 27 March 2010 at the Pretoria Motor Club in Silverton. The starting time is 08:00 and will it will last until approximately 11:00. For further information or to book a table, contact Almero du Pisani, ZS6LDP, on cell phone number 082 908 3359 or send an email to almero@up.ac.za.

I am told that small fleas are also allowed to attend this event!

#### Contest Calendar

This week's contests compiled by Bruce Horn, WA7BNM. The period covered is 5 to 14 March 2010.

NCCC Sprint

02:30 - 03:00 UTC 5 March

Mode: (see rules)
Bands: (see rules)
Classes: (none)
Exchange: (see rules)

Score Calculation: Total score = total QSO

points x total mults

Submit logs by: 7 March 2010

E-mail logs to: (none)
Post log summary at:

http://www.hornucopia.com/3830score/

Mail logs to: (none)
Find rules at:

http://www.ncccsprint.com/rules.html

ARRL International DX SSB Contest

00:00 UTC 6 March to 24:00 UTC 7 March

Mode: SSB

Bands: 160, 80, 40, 20, 15 and 10 m

Classes: Single Op All Band - QRP, Low or High; Single Op Single Band; Single Op Assisted; Multi-Single; Multi-Two; Multi-Multi Max power: HP: 1 500 watts; LP: 150 watts;

QRP: 5 watts

Exchange: W/VE: RS and state or province;

non-W/VE: RS and power Work stations: Once per band QSO Points: 3 points per QSO



Multipliers: W/VE: Each DXCC country once per band; Non-W/VE: Each state, District of Columbia, VE province/territory once per band

Score Calculation: Total score = total QSO

points x total mults

Submit logs by: 23:59 UTC 5 April 2010 E-mail logs to: DXPhone[at]arrl[dot]org Mail logs to: ARRL Intl DX Contest, Phone, ARRL, 225 Main St., Newington, CT 06111,

USA

Find rules at:

http://www.arrl.org/contests/rules/2010/intldx.html

Wake-Up! QRP Sprint

06:00 - 06:29 UTC, 06:30 - 06:59 UTC, 07:00 -0729 UTC and 07:30 - 08:00 UTC 6

March Mode: CW Bands: 40, 20 m Classes: (none) Max power: 5 watts

Exchange: RST, serial No and suffix of pre-

vious QSO ("QRP" for 1st QSO)

Work stations: Once per band per period

Q50 Points: 1 point per km

Multipliers: 1 point per new station worked

on each band

Score Calculation: Total score = total Q50

points x total multiplier points Submit logs by: 13 March 2010

E-mail logs to: ru-grp-club[at]mail[dot]ru

Mail logs to: (none)
Find rules at:

http://qrp.ru/modules/sections/index.php?o

p=viewarticle&artid=7&page=1

Open Ukraine RTTY Championship

20:00 - 21:59 UTC 6 March (Low Band); 22:00 - 23:59 UTC 6 March (Low Band) and

08:00 - 11:59 UTC 7 March (High Band)

Mode: RTTY

Bands: 160, 80, 40, 20, 15 and 10 m

Classes: Single Op Multi-Band; Single Op

Single Band; Multi-Op Multi-Band

Exchange: 2-letter regional abbreviation (state/province/canton, etc.) and serial no

(restart serial no for high band)

Work stations: Once per band per period QSO Points: 2 points per QSO; 10 points per

new region once per band per period

Multipliers: (none)

Score Calculation: Total score = total points

Submit logs by: 8 April 2010

E-mail logs to:

krs[at]model[dot]poltava[dot]ua

Mail logs to: George Ignatov, UT1HT, PO Box

87, Kremenchug-21 39621, Ukraine

Find rules at:

http://www.ucc.zp.ua/rtty2009rules\_eng.ht

m

UBA Spring CW Contest 07:00 - 11:00 UTC 7 March

Mode: CW

Bands: 80 m Only Classes: Single; SWL

Max power: non-QRP: >5 watts; QRP: 5 watts Exchange: ON: RST, serial no and UBA Sec-

tion; non-ON: RST and Serial No

QSO Points: 3 points per QSO with Belgian

station

Multipliers: Each UBA Section

Score Calculation: Total score = total QSO

points x total mults

Submit logs by: 28 March 2010

E-mail logs to: ubaspring[at]uba[dot]be

Mail logs to: Michel Gertis, ON4CAQ, Mommestraat 69, B-3550 Heusden Zolder, Belgium

Find rules at:

http://www.uba.be/vhf/contest/spring2009

\_GB.pdf

DARC 10-Metre Digital Contest 11:00 - 17:00 UTC 7 March

Mode: RTTY, Amtor, Clover, PSK31, Pactor

Bands: 10 m Only Classes: Single Op; SWL Exchange: RST and Serial No QSO Points: 1 point per QSO

Multipliers: Each WAE/DCXX area; Each

W/VE call area

Score Calculation: Total score = total QSO

points x total mults

Submit logs by: 6 April 2010

E-mail logs to: df5bx[at]darc[dot]de



Mail logs to: Werner Ludwig, DF5BX, PO Box 1270, 49110 Georgsmarienhuette, Germany

Find rules at:

http://www.darc.de/referate/ukw-funksport/sonder/tei-digi.htm

SARL Hamnet 40 m Simulated Emergency

Contest

12:00 - 14:00 UTC 7 March

Mode: SSB Bands: 40 m Only

Classes: A: Single Op Stationary Mobile; B: Single Op Portable; C: Multi-Op Portable; D:

Single Op Base Station

Exchange: Class A: RS and Serial No (starting with 201); Class B: RS and Serial No (starting with 401); Class C: RS and Serial No (starting with 601); Class D: RS and Serial No (starting with 801) and Nonparticipants: RS and Serial No (starting with 001)

Score Calculation: (see rules)
Submit logs by: 22 March 2010

E-mail logs to:

contest[at]pears[dot]ham-radio-op[dot]net Mail logs to: Hamnet Eastern Cape, Al Akers, ZS2U, 53 Clarence Street, Westering, Port

Elizabeth 6025, South Africa

Find rules at:

http://www.sarl.org.za/public/contests/SAR L%202010%20Contest%20Manual.pdf

CLARA HF Contest

17:00 UTC, Mar 9 to 17:00 UTC, Mar 10 and 17:00 UTC, Mar 13 to 17:00 UTC, Mar 14

Mode: CW, Phone

Bands: 80, 40, 20, 15 and 10 m

Classes: Single Op Max operating hours: 24

Exchange: Name, QTH and CLARA member,

family member or non-member YL/OM Work stations: Once per band per mode QSO Points: 5 points per QSO with CLARA member; 2 points per QSO with CLARA family member; 3 points per QSO with non-

member YL; 1 point per QSO with OM

Multipliers: Each Canadian call area once; Each DXCC country (must be YL QSO) once Score Calculation: Total score = total QSO

points x total mults

Submit logs by: 15 April 2010

E-mail logs to:

va1yl[at]ns[dot]sympatico[dot]ca

Mail logs to: Helen Archibald, VA1YL, 25 Canard Street RR#1, Port Williams, NS VOP

1TO, Canada Find rules at:

http://groups.google.ca/group/clara-

clarion/web/clara-contest

#### Next Week's Contests

CLARA HF Contest, 17:00 UTC 9 March to 17:00 UTC 10 March and 17:00 UTC 13 March to 17:00 UTC 14 March

CWops Mini-CWT Test, 11:00 - 12:00 UTC and 19:00 - 20:00 UTC 10 March; 03:00 - 04:00 UTC 11 March

HA3NS Sprint Memorial Contest, 18:30 - 19:00 UTC 12 March (80 m); 19:00 - 19:30 UTC 12 March (40 m)

RSGB Commonwealth Contest, 10:00 UTC 13 March to 10:00 UTC 14 March

AGCW QRP Contest, 14:00 - 20:00 UTC 13 March

ARCI HF Grid Square Sprint, 15:00 - 18:00 UTC 13 March

Feld Hell Sprint, 16:00 - 18:00 UTC 13 March

EA PSK31 Contest, 16:00 UTC 13 March to 16:00 UTC 14 March

Elecraft QSO Party, 18:00 UTC 13 March to 18:00 UTC 14 March

SOC Marathon Sprint, 18:00 - 24:00 UTC 13 March

Idaho QSO Party, 19:00 UTC 13 March to 19:00 UTC 14 March

North American RTTY Sprint, 00:00 - 04:00 UTC 14 March

SKCC Weekend Sprint, 00:00 - 24:00 UTC 14 March



UBA Spring 6 m Contest, 07:00 - 11:00 UTC 14 March
NSARA Contest, 11:00 - 15:00 UTC and 17:00 - 21:00 UTC 14 March
Bucharest Contest, 16:00 - 17:29 UTC and 17:30 - 18:59 UTC 15 March
Wisconsin QSO Party, 18:00 UTC 14 March to 01:00 UTC 15 March

### This week in History

1876 Alexander Graham Bell - granted an US Patent for his telephone.

1893 Thomas Alva Edison opens first the motion picture studio in West Orange, New Jersey.

1897 Guglielmo Marconi demonstrates radio to the UK Army, etc., and achieves about 5 km.

1894 First steel sailing ship, Dirigo, launched in Maine, USA.

1899 SS "R F Matthews" collided with the lightship, which alarmed the lighthouse ashore to get assistance. This was the first time ever a distress call was transmitted by radio from a ship at sea.

## Remembering the unit men - Bell

Hello, I am Jim Linton, VK3PC, with another in a series of brief looks at those who made discoveries and have their names as units of measurement.

Scottish born Alexander Graham Bell is best known for the first practical telephone. A strong influence on him was that both his mother and wife were deaf, leading him into research on hearing and speech, engaging in the emerging art and science of elocution and being a teacher of the deaf.

After reading a book about electromagnetism and electricity, he was inspired, setting the scene for his later work on a speaking telegraph - the telephone.

Bell moved to Quebec Canada with his family as a young man, but in 1871 he relocated to Boston to teach deaf children, and overturned the notion of the era in North America that people who could not hear had no place in normal society.

Then he was appointed as professor of vocal physiology and elocution at the Boston University, while still maintaining his experimental telegraph work after hours. Apart from the telephone, he achieved breakthroughs later in life in optical telecommunications, hydrofoils and aeronautics.

Bell was an advanced thinker. For example, in 1917 he wrote about the depletion of natural resources, and stated that the unchecked burning of fossil fuels would lead to a sort of greenhouse effect and global warming.

The logarithmic measurement of sound has the international unit of the Bel, which is too large for practical use resulting one tenth of a Bel, or the Decibel, being commonly used. [WIA News]

Items used with acknowledgement to The ARRL Letter, Amateur Radio Newsline, OPDX Bulletin, 425 DX Bulletin, DXNL Bulletin, ARRL DX News, WIA-News, the RSGB News, Maurice, F5NQL, Southgate ARC and Pete's DX Newsdesk.

Newsletter editors are most welcome to use material from HF Happenings, just remember to acknowledge the source (which could be any one of the names mentioned above). HF Happenings can be provided in M5 Word format.